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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,267	12/12/2003	Masahiko Suzuki	HITA.0470	8685

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,267

Applicant(s)

SUZUKI ET AL.

Examiner

Andrew Schechter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 13-19 is/are pending in the application.
- 4a) Of the above claim(s) 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 13, 16 and 18 is/are rejected.
- 7) ☒ Claim(s) 17 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 17 and 19 are objected to because of the following informalities:
"diffusion member" in line 2 should be "heat diffusion member". Appropriate correction is required.
3. Claim 13 is objected to because of the following informalities: "different form" in line 3 should be "different from". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by *Matsumoto et al.*, U.S. Patent No. 6,862,067.

Matsumoto discloses [see Figs. 1-4, for instance] a display device comprising a pixel electrode [27] and a common electrode [26] formed in the same layer, and a metal heat diffusion member [42a, made of Cr] formed in a layer different from the layer in which the pixel electrode and the common electrode are formed, wherein the heat diffusion member has a projection portion [a part not overlapped by 41, projecting up and to the right] at a portion thereof remoter than a distance between the heat diffusion member and a thin film transistor [41], and the heat diffusion member is superposed on the pixel electrode at the projecting portion, and wherein an inorganic insulation film [25a] and an organic insulation film [25b] are provided between a layer on which the heat diffusion member is formed and the layer on which the pixel electrode and common electrode are formed, and the organic insulating film has a removed portion [39b] at least at the superposed portion between the heat diffusion member and the pixel electrode. Claim 13 is therefore anticipated.

This is a liquid crystal display comprising TFTs [30, 41], scanning signal lines [28], data signal lines [24] arranged as recited, pixel electrode and common electrode as recited, a pixel region as recited, a metal heat diffusion member which is disposed in a spaced apart manner from the TFT [just as in the applicant's invention, an extension of the heat diffusion member overlaps the TFT and the rest does not; "spaced apart" is therefore interpreted by the examiner as "not completely overlapping" rather than "not overlapping at all"; alternatively, the heat diffusion member could be considered just the section of the electrode (in both application and reference) which does not overlap the TFT; in either case there is no difference between the application and reference with

regard to the "spaced apart" limitation]; the heat diffusion member has a projecting portion which is remoter than a distance between the TFT and the heat diffusion member, it is superposed with a transparent pixel electrode, the pixel electrode and common electrode are formed in the same layer, and an inorganic and an organic insulation film are provided between the heat diffusion member layer and the pixel electrode layer, the organic insulation film having a removed portion at least at the superposed portion between the heat diffusion member and the transparent electrode [27]. Claim 11 is therefore anticipated as well.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Matsumoto et al.*, U.S. Patent No. 6,862,067 as applied above, in view of *Taguchi*, U.S. Patent No. 5,963,279.

Matsumoto does not necessarily disclose that there is an electrode residue which short-circuits the pixel electrode and common electrode as the pixel electrode and the common electrode are formed. *Taguchi* discloses that in the actual realistic manufacturing of such devices, "there is a likelihood of occurrence of defects such as a short circuit 32 between the picture-element electrodes where the picture-element

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electrodes 6 are short-circuited" [col. 5, lines 16-19]. It would therefore have been obvious to one of ordinary skill in the art at the time of the invention that such an electrode residue would be formed which short-circuits the pixel electrode and the common electrode as they are formed, motivated by the desire to avoid the excessive precautions which might ensure such a defect not occasionally being formed. (Such a defect might be tolerated, or it might be alleviated as discussed in *Taguchi*; in either case it would read on the present claim language.) Claims 16 and 18 are therefore unpatentable.

Allowable Subject Matter

8. Claims 17 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the device of claims 17 and 19, in particular the additional limitation that there are laser beam irradiated voids on the projecting portion of the heat diffusion member and on the pixel electrode (simultaneously made), which electrically insulate the pixel electrode from the common electrode after they are short-circuited. Claims 17 and 19 would therefore be allowable if rewritten appropriately.

Election/Restrictions

10. Claims 14 and 15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 19 May 2005.

Conclusion

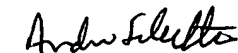
11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nelms can be reached at (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrew Schechter
Primary Examiner
Technology Center 2800
17 September 2006